

PRESENT AND PROPOSED LEGISLATION FOR THE PREVENTION OF BLINDNESS.

By EDWARD F. GLASER, M. D., San Francisco.

Prevention is the watchword of the scientific and medical world to-day, and the ideal physician is he who strives to prevent disease, rather than he who awaits and treats arising pathological conditions which so often might have been prevented. Surely the doctor's highest value is not simply in his visit and collection of fee, but in the bigger, broader, physical and mental atmosphere he can produce, and in the constructive and educational work that will eliminate the ignorance and carelessness which produce unnecessary disease.

It is safe to say that fully 100,000 men, women and children in this country are within the strict definition of the word, blind, and that about 1500 of them are in California. These figures are not only startling when we consider the number of people deprived of that most wonderful of God-given senses, viz., vision—but they become sensational when we realize that fully 40 per cent. of them are needlessly blind; that is, they are not sightless unfortunates because of some original necessary eye disease, nor because of some constitutional or hereditary defect of the visual organ itself, but because of the ignorance or carelessness which permits social and industrial accidents, which allows trachoma to spread, phlyctenular keratitis to exist, and which encourages ophthalmia neonatorum.

These 1500 blind in California deprive the state yearly of more than, at a minimum, half a million dollars' worth of productive labor, and it is costing the state approximately ten times as much to educate one blind child, as it does to educate one seeing child. In our great and richly productive state, we can afford the economic loss, we can afford the education of our blind—but can we afford the stigma of not striving to reduce the number of the preventably blind? In this work the doctor, and especially the ophthalmologist should lead, for it is to them that the general public looks for the safeguarding of this special sense, and we, by our silence, lull them into a false sense of security. As someone has expressed it, we need education to a decent respect for our responsibilities in this regard.

The efforts to prevent blindness have been directed through many channels, legal, professional, institutional, social and industrial; and we have been requested to speak of what the State of California itself is doing in the preventive work. The State Board of Health issues a list of

contagious and communicable diseases, reportable by law to the local health officer, and in this list are trachoma and ophthalmia neonatorum. Too much emphasis cannot be put upon this one simple measure of the prompt reporting of a communicable disease. Physicians should realize the importance of this and the responsibility upon themselves when they do not report. A case reported is a case safeguarded, a physician aided and a community protected. Vital statistics give the locality, character and number of cases, without which no adequate or comprehensive program can be started in any campaign against disease.

California with its wealth of climate, food products, plenty of opportunity and space for everyone, has fortunately had, in the past, comparatively few cases of trachoma, the disease which finds its most congenial soil in personal uncleanness and filthy housing; but recently cases have been reported from many localities in the state, and the number of cases is increasing, and trachoma is now found among our native-born school children, and fear has been expressed that it may become in California, the public menace it is in the Southern states. It is but a few years ago that the South had comparatively few cases—a condition similar to that of California to-day. Now, it has been estimated, that in certain sections of the Southern states, nearly 40 per cent. of the inhabitants are suffering from trachoma or its after effects. It has become one of their greatest public health problems, and it is interesting to note, that in Kentucky, for economic, as well as humane reasons, all three political parties (Progressive, Republican and Democratic) have inserted planks in their platforms (the only plank dealing in any manner with public health) recommending that the State of Kentucky "supplement and later continue the work of the United States Public Health Service for the Prevention of Blindness from Trachoma."

Let us therefore take warning from the present condition of the Southern states, and check the spread of this disease in California while it is yet controllable. Let us prevent the long-continued suffering of the trachomatous patient: let us prevent the damaged vision and increase in the numbers of the blind: let us prevent the great economic and social loss to the community: and the first requisite in the work is the reporting of all cases to the proper health authority as required by law.

It is needless to say that the trachomatous patient should be excluded from the schools, factories and any other places where people congregate, and this isolation is best secured by co-operating with the proper health authority, who upon securing report of the case, should insure the isolation and where necessary, instruct the patient and contacts as to the hygiene of patient and contacts, so preventing others from becoming infected with the disease. This reporting would

also assure adequate treatment for cases not already properly cared for.

An effort is to be made at the next legislature to obtain a law preventing the use of the common or roller towel. San Francisco and Los Angeles already have local ordinances, and the State Board of Health will back similar legislation for the whole state. It is unnecessary for me to explain to you gentlemen the part the roller towel plays in the spread of trachoma and other eye diseases—so let us encourage and help the passage at the next session of the legislature, of a bill making the use of the common or roller towel, as well as the common drinking cup, impossible in California, and so check a common means for the spread of vision-injuring contagions.

One of the most meritorious bills passed by the 1915 legislature, was the bill designed to prevent blindness from ophthalmia neonatorum. This bill originated with the State Board of Health, which is made responsible for the carrying out of its provisions. The new law in California requires doctors, midwives, nurses, etc., to report within twenty-hours any case of ophthalmia neonatorum to the local health officer who is required to investigate the case and report to the State Board of Health. The investigation of the local health officer would naturally bring about prompt and adequate treatment for all uncared-for cases. Also this investigation would protect the contacts by the instruction to the family as to the contagiousness of the disease, and as to the care and hygiene of the patient and of those who come in contact with him.

The law makes the failure to report any case of ophthalmia neonatorum a misdemeanor, subject to a fine. In this law ophthalmia neonatorum is defined as any inflammatory condition of the eyes occurring within two weeks after birth, independent of the nature of the infection. This emphasizes and makes necessary the early recognition and diagnosis, which is important in the checking and curing of the disease. The law directs the free distribution by the State Board of Health of a scientific prophylactic. The prophylactic selected is a one per cent. solution of nitrate of silver. The distribution is accomplished by the Bureau of Communicable Diseases located at the State Hygienic Laboratory, Berkeley. Sample outfits have been sent to every physician in the state, and others may be obtained from the health officers throughout the state, and from the State Hygienic Laboratory or its branches, or from the depositories (about 175) which the State Laboratory maintains in the drug stores of many towns throughout the state.

The reporting of ophthalmia neonatorum is compulsory in over thirty of the United States—the use of a proper prophylactic compulsory in six states, and the free prophylactic outfits are distributed in over thirteen. The consideration of ophthalmia neonatorum leads naturally to the yet unsolved and apparently unsolvable problem of the midwife. It is easy to denounce the midwife and it is theoretically right to say

“do away with the midwife,” but when we consider that in the whole United States about 20 per cent. of the deliveries are by midwives, and that in some of the larger cities over 60 per cent. of the confinements are attended by midwives, it becomes evident that we cannot summarily do away with the midwife without offering a substitute—as for instance, free and moderately priced beds in maternity wards of hospitals; and free and moderately priced maternity services in the homes. It seems to me that in finding a substitute for the midwife, lies a big opening and opportunity for the woman physician, not only professionally, but socially—for as long as emigration continues, among the poorer classes of foreign importation the instinct of the ages is often outraged by the attendance of a man at the lying-in bedside. In California there is agitation started to secure legislation to regulate and license midwives, compelling them to pass certain requirements as to knowledge and experience as a requisite for legislation—and compelling them and their outfits to be subject to periodic inspections. If such legislation is passed, it should be a prerequisite for the registration of midwives that they should give satisfactory evidence of a proficiency in the knowledge of the dangers and the prevention of ophthalmia neonatorum.

Personally I am yet to be convinced that either the municipal or state recognition and control of midwives is a good thing; rather is it a palliation of a bad thing—and so far, nowhere has the supervision of the midwife proved entirely satisfactory. So why work for legislation—rather put the energy into establishing the substitutes which will make possible the doing away entirely with the midwife.

Any suggested legislation about industrial eye accidents would seem more than unnecessary while we have in the state such a fine working force as the Industrial Accident Commission, which has power to act and is using it, in the reduction and prevention of industrial accidents. The Industrial Accident Commission is not only a clearing house for industrial accidents, and an insurer against them—but also as a preventer of accidents—the safety first department being a big and perhaps most important one-third of the work of the commission, comprising, as it does, the study and installation of safety devices and measures. They not only advocate the use of goggles on employees in trades hazardous to the eyes—but they have established safety first exhibits which include various forms and types of goggles and eye-protective devices—and are educating the employers up to the necessity of providing, installing and insisting upon the use of them. The Industrial Accident Commission has made it a point to have installed iron and glass guards over emery wheels. Doctors can aid the good work of the Commission by co-operating with them, and reporting to the Commission promptly any eye accident of whatever magnitude, and also reporting any unsafe practices or non-use of goggles or protective devices in hazardous employments.

At their safety first museums at 525 Market street, San Francisco, and in the Union League Building, Los Angeles, there are extensive exhibits of goggles and eye protecting devices, together with many pictures and cuts of eye injuries which might have been prevented by the use of simple and specific measures.

So here, the state, through the Industrial Accident Commission, is doing fine preventive work—and we can aid by our co-operation with the Commission and by assisting in the education of the workman to the vital necessity of using the protective devices.

Ophthalmologists would render valuable services to the state and to the industries by doing some original research work and studying the effect of certain kinds of occupations upon the eyes of the worker, and where necessary, determining, not only the cures, but especially the preventive measures. As, for instance, has the cause of decrease in vision of saw-filers been fully determined? And what is the prevention? Or how can we prevent "pink eye" among workers in oil refineries and around gasoline? Blindness from wood or methyl alcohol is on the increase in the United States and general or federal legislation prohibiting the sale of wood alcohol is the thing to be desired. Wood alcohol is a most excellent solvent and mixes easily with all sorts of liquids, so because of its cheapness, it is much used in the arts and industries—but since the revenue tax has been removed from denatured alcohol, making it cheaper than wood alcohol, and as denatured alcohol answers every purpose, and most of them better than wood alcohol, except perhaps, in the manufacture of some forms of gunpowder and high explosives, there should be no use of so virulent a poison as wood alcohol. The insidious effects can be obtained not only by drinking it, but by inhalation or the rubbing into the skin, and no treatment seems of avail for the optic atrophy produced. In California we are protected from wood alcohol poisoning by the Pure Drug Act, which specifies that only ethyl alcohol is to be used in the manufacture of drugs—and the Pure Food law which prevents the use of any deleterious or injurious article in foods, and the Poison law compels proper labeling, with the name of the article, and word "poison" and the name and place of business of person furnishing the same.

As in a broad sense ophthalmologists are concerned not only with the prevention of blindness, but also the elimination of evils which affect or damage eye efficiency, so should they be interested in and encourage such problems as the proper illumination of our public schools, of stores, factories, and public buildings; and strive to have an expert on illumination in consultation on the plans of all public buildings, especially schools.

Also the formation of classes in our public schools for the visually handicapped pupils, is to be considered and encouraged. Some cities in this country and abroad have special schools for the

highly myopic (Boston, Toledo, Cleveland), where much of the work is done by the ear, and books printed in heavy face large type are used. School medical inspection in which special attention is paid to visual defects has been promoted in many parts of the country as a result of the efforts of the A. M. A. Committee, and in most of the larger cities of California some good work is being done by the school inspector and the school nurse, in recognizing the importance of and insisting upon the correction of errors of refraction, as well as directing treatment for eye diseases.

Special legislation is needed, and it is hoped to have such passed at the next legislature, separating the school for the blind from that of the deaf, now combined in one. It is suggested to use the present beautifully situated institution in Berkeley for the use of the deaf, and establish the school for the blind in some other place. Superficial consideration will indicate the wisdom of the separation, as the methods of teaching, the methods of working, the methods of playing and the discipline of the two are totally different; and the combining of the two does not do justice to either, or credit to the state. Only nine of the backward Southern and Western states have their deaf and blind children combined in one school. Washington has separated them in the last five years, and Oregon has never had them together.

In the care and education of the blind, California is doing herself no special credit, as the school for the blind restricts its pupils to the school age, and the accommodations are not equal to the demand—there being a waiting list of blind children desiring entrance. The state should not only have a larger, more thoroughly equipped school for the blind, separate and distinct from the school for the deaf—but also requires that some provision be made for the care of the blind baby or child under six years of age, as it is in those first years of life that so much can be done in the training and education before wrong teaching or no teaching has encouraged fixed habits or has neglected opportunities for developing the other senses.

To conclude: In the study of legislation of the prevention of blindness, the first thing to be desired is for ophthalmologists to know and aid in the enforcement of the legislation now in existence—especially the reporting to the proper authority of trachoma, and see that the proper isolation and instruction is insisted on—to carry out the new ophthalmia neonatorum law, seeing that each case is properly reported and adequately treated, and above all, advocating the use of the prophylactic—and to co-operate with the Industrial Accident Commission and aid them in their educational and preventive work,—to encourage school medical inspection—and as for the new legislation to be obtained, not to forget to work for the abatement of the roller towel, and separation of the schools for the blind and deaf.

At some not far distant session of the state legislature may we not hope to secure for California a commission for the blind as is existing and

working in Ohio, Massachusetts and New York—a commission, under which could be grouped all the problems of the blind—physical, educational, social and economic.

Discussion.

G. A. Briggs, M. D.: The doctor has covered this subject so well that there is very little left to be said. I want to mention one point, and that is regarding the use of these collargol salts, instead of silver nitrate. I had a case of ophthalmia referred to me recently after the use of argyrol. We think we are perfectly safe in using a 10% solution of argyrol instead of a 1% solution of silver nitrate. The use of protargol may be justifiable but I doubt even that.

P. A. Jordan, M. D.: In our present semi-chaotic relations with the Accident Board, I think we should help instruct the accident insurance companies on this one point, namely, that all eye accidents should be immediately and forthwith referred to an oculist, and not be sent to a general practitioner who may be in charge. I have seen already two very grave results which might have been prevented, and the permanent damage lessened had the cases been referred to a specialist in the first place. I hope we will all make a strong point of this, and try and instruct the accident insurance companies not to advise, and even urge or practically compel their men to report to the general physician selected, allowing him later, if he sees fit, to call in an eye specialist.

B. F. Church, M. D.: The subject of Dr. Glaser's paper is timely, especially his reference to trachoma in California. On account of the rarity of the disease in this state in the early days, and its prevalence now, some of us are living in false security. During several years' practise in Los Angeles, prior to five or six years ago, I do not remember to have seen more than two or three cases of trachoma in the native born. Since that time, during a residence at Redlands, its prevalence has been noticeable.

An Indian reservation near Banning and the Indian school at Riverside have many cases. I believe the disease is spreading in this state and that we should pay attention to it.

F. L. Rogers, M. D.: Previously the trachoma cases in Southern California were among the Mexicans. At Long Beach we have had considerable of an addition to our Mexican population during the past six months, and we have had a number of cases of trachoma reported among that population which were not so numerous until six months ago.

I want to testify to the fact that products of silver, that is argyrol and protargol, are absolutely unsatisfactory in my hands in the treatment of such conditions. I think silver nitrate is medically by far the most reliable remedy, and I think I would be almost criminally negligent to use anything but silver nitrate in cases of gonorrheal infection, either in children or adults. Not long since I had a case of a little girl about eight years of age who was brought to me by a general practitioner. I suspected gonorrheal infection and the microscope proved that it was gonorrheal. She made such a fuss about the silver nitrate that I tried a 20% solution of argyrol and even a 40% solution, but the condition became worse. I went back to the silver nitrate and the condition promptly began to clear up and got well. This subject is one of very great importance to us and to the public as well.

Thos. J. McCoy, M. D.: I first wish to congratulate ourselves on the paper we have heard and the way it was handled, recalling to our minds our responsibility in these cases.

Three years ago I spent three months in Vienna in Fuchs' Clinic and found nitrate of silver is used almost exclusively.

Regarding the doctor's idea, I find the commission is only too willing for our assistance and often soliciting our advice as to the best method of eliminating eye accidents. But, as the doctor suggests, if these accident cases were referred to an oculist in the beginning, many cases would be conducted to a safe termination and cure.

V. H. Hulen, M. D.: When my ophthalmia and trachoma patients in private practise are informed that the law requires me to report their condition they at once desire to know what the authorities will do in their cases. If I may, I desire to ask Dr. Glaser just how I shall reply?

Another point, could we say to such patients that as long as they are under the care of a competent specialist their condition is not reportable, but as soon as they disappear from our observation before recovery the law then requires us to immediately report them to the proper officials, I believe they would very probably be influenced thereby to continue treatment until pronounced cured, rather than by the present law which simply requires them to be reported when first applying to us.

E. F. Glaser, M. D.: I was much pleased with Dr. Franklin's and Dr. Briggs' remarks regarding the use of the 1% solution of silver nitrate as the prophylactic. We receive some interesting letters regarding this. One doctor sent the ampules back and said he would never use them again, that he had obtained such an intense reaction. He was asked how he had used the prophylactic and stated that he had first washed out the eyes with a creolin solution, then he instilled two drops from the wax ampules, and then he applied a 1% yellow oxide mercury ointment in the eyes. He said that the State Board of Health should not be sending out anything which produced such a condition. In answering his letter, we tried to explain the effect of the creolin solution upon the mucous membrane.

I would ask Dr. Jordan whether he was referring to the Industrial Accident Commission, the insurance companies or the corporations. The Commission has emphasized the importance of eye accidents being sent at once to a competent specialist.

Last week I helped formulate a letter for a corporation who perhaps for the sake of economy and convenience had left their eye cases in the hands of the general practitioner. In this letter they directed that all eye cases of whatever magnitude be referred at once to a competent specialist.

Dr. Jordan: I referred to corporations.

Dr. Glaser: Regarding trachoma, the vital statistics show that 57 cases were reported last year from Los Angeles. So far this year there have been seventeen cases reported. The fifty-seven cases referred to are evidently not Mexicans, but from the names given, I should judge they were American-born children, there being no Mexican names among them.

Our clinics show that trachoma is increasing rapidly.

In answer to Dr. Hulen's question,—one is compelled by law to report all cases of trachoma to the proper health authority whose duty it is to investigate when they deem that the circumstances, locality or the attendance upon the case make it advisable. The authorities would naturally expect that any case reported by any member of this society would be properly isolated, instructed and competently taken care of. If the case were not properly handled, then it would be the duty of the authorities to insure this.